Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.   (Currently Amended) A catalyst system for use in reducing emissions from an exhaust gas stream comprising:

a first catalyst for optimizing the storage of NOx emissions under lean air/fuel ratios, comprising a Perovskite-type ABO_3 crystal structure wherein

the A cation sites are occupied by lanthanide ions and the B cation sites are occupied by cobalt ions, wherein from about 1 to up to 70% of the lanthanide A cation sites are substituted with a NOx trapping metal selected from the group consisting of barium, magnesium, and potassium, wherein from about 1 to up to 60% of the cobalt B cation sites are substituted with a metal selected from the group consisting of platinum, rhodium, iron, copper and manganese; and

a second catalyst for optimizing the reduction of hydrocarbon, NOx and CO emissions under stoichiometric air/fuel ratios, comprising a catalyst mixture PM-Rh where PM is a catalyst material selected from the group consisting of platinum, palladium and combinations thereof, <u>wherein the first and second catalysts are closely coupled, the first catalyst being placed in a forward position and the second catalyst being placed in a downstream position in the exhaust stream.</u>

2.   (Original) The catalyst system of claim 1, wherein the first catalyst is prepared by sol-gel.

3.   (Original) The catalyst system of claim 1, wherein the first catalyst is prepared by co-precipitation.

4.   (Currently Amended) The catalyst system of claim 1, wherein the ratio of PM:Rh in the catalyst mixture PM-Rh is ~~between~~ 9:1.

5.   (Currently Amended) The catalyst system of claim 1, wherein the ratio of PM:Rh in the catalyst mixture PM-Rh is ~~between~~ 7:1.

6.   (Original) The catalyst system of claim 1, wherein the PM has a total loading of 20-60 g/ft^3.

7.   (Original) The catalyst system of claim 1, wherein the PM has a total loading of 40-60 g/ft^3.

8.   (Original) The catalyst system of claim 1, wherein the first catalyst has the formula $La_{0.5}Ba_{0.5}Co_{0.9}Rh_{0.1}O_3$.

9.   (Original) The catalyst system of claim 1, wherein the first catalyst has the formula $La_{0.5}Ba_{0.5}Co_{0.6}Fe_{0.3}Pt_{0.1}O_3$.

10.   (Original) The catalyst system of claim 1, wherein the first catalyst has the formula $La_{0.5}Ba_{0.5}Co_{0.9}Pt_{0.1}O_3$.

11.   (Original) The catalyst system of claim 1, wherein the catalyst mixture PM-Rh is coated on an alumina substrate.

12.   (Original) The catalyst system of claim 11, wherein the alumina substrate in the second catalyst is stabilized by 2-20%(wt) BaO.

13.   (Original) The catalyst system of claim 11, wherein the PM is loaded on the alumina substrate by wet impregnation.

14.   (Original) The catalyst system of claim 1, wherein the platinum and rhodium in the second catalyst are placed on Ce and Zr particles of 2-20%(wt).

15.   (Original)   The catalyst system of claim 1, wherein an exhaust gas sensor is placed between the first and second catalysts.

16.   (Cancelled)

17.   (Withdrawn)   A method of reducing emissions from an exhaust gas stream comprising:

providing a first catalyst for optimizing the storage of NOx emissions under lean air/fuel ratios, comprising a Perovskite-type ABO_3 crystal structure wherein

the A cation sites are occupied by lanthanide ions and the B cation sites are occupied by cobalt ions, wherein from about 1 to up to 70% of the lanthanide A cation sites are substituted with a NOx trapping metal selected from the group consisting of barium, magnesium and potassium, wherein from about 1 to up to 60% of the cobalt B cation sites are substituted with a metal selected from the group consisting of platinum, rhodium, iron, copper and manganese; and

providing a second catalyst for optimizing the reduction of hydrocarbon, NOx and CO emissions under stoichiometric air/fuel ratios comprising a catalyst mixture PM-Rh wherein PM is a catalyst material selected from the group consisting of platinum, palladium and combinations thereof.

18.   (Original) A catalyst system for use in reducing emissions from an exhaust gas stream of a device having an exhaust emitting component, comprising:

a catalyst having a Perovskite-type ABO_3 crystal structure wherein

the A cation sites are occupied by lanthanide ions and the B cation sites are occupied by cobalt ions, wherein from about 1 to up to 70% of the lanthanide A cation sites are substituted with a NOx trapping metal selected from the group consisting of barium, magnesium, and potassium, wherein from about 1 to up to 60% of the cobalt B cation sites are substituted with a metal selected from the group consisting of iron, copper and manganese, the catalyst being positionable in a forward position in the exhaust relative to a second catalyst for optimizing the reduction of hydrocarbon, NOx and CO emissions under stoichiometric air/fuel

-4-

ratios, the second catalyst comprising a catalyst mixture PM-Rh where PM is a catalyst material selected from the group consisting of platinum, palladium and combinations thereof.

19.   (Original) The catalyst system of claim 18, wherein the catalyst is coated on a ceramic substrate.

20.   (Original) The catalyst system of claim 18, wherein the catalyst is coated directly onto the exhaust emitting component.

21.   (New) A catalyst system for use in reducing emissions from an exhaust gas stream comprising:

a first catalyst for optimizing the storage of NOx emissions under lean air/fuel ratios, comprising a Perovskite-type ABO_3 crystal structure wherein

the A cation sites are occupied by lanthanide ions and the B cation sites are occupied by cobalt ions, wherein from about 1 to up to 70% of the lanthanide A cation sites are substituted with a NOx trapping metal selected from the group consisting of barium, magnesium, and potassium, wherein from about 1 to up to 60% of the cobalt B cation sites are substituted with a metal selected from the group consisting of platinum, rhodium, iron, copper and manganese;

a second catalyst for optimizing the reduction of hydrocarbon, NOx and CO emissions under stoichiometric air/fuel ratios, comprising a catalyst mixture PM-Rh where PM is a catalyst material selected from the group consisting of platinum, palladium and combinations thereof; and

an exhaust gas sensor is placed between the first and second catalysts.